Qty:

: 350 SKIDTUBE EXTRUSION (BENT)

Thursday, 19/02/2009 1:52:56 PM

User:

Julie Dawson

**Process Sheet** 

Customer Job Number

Prsht Rev.

First Issue

Comment

: CU-DAR001 Dart Helicopters Services

: 45897

**Estimate Number** 

: 10997

P.O. Number

This Issue

: 19/02/2009

: NC

: //

: 45063

: SKIDTUBES Type

**Part Number** 

**Due Date** 

**Drawing Name** 

: D26003BENT

**Drawing Number Project Number**  D2600 D1/D2750 F : N/A

: D1/F **Drawing Revision** 

Material

: 03/03/2009

13 **Um**:

Each

Written By Checked & Approved By

**Previous Run** 

: Est. B02.11.28

S.O. No. :

Est Rev:C

Reformat KJ

08-09-30 D2750 revF as per dwg DD verified by:EC

**Additional Product** 

Job Number:



Seq. #:

**Machine Or Operation:** 

Description:

1.0

D26003120

Extrusion Round 3" 350



Comment: Qty.:

1.0000 Each(s)/Unit Total:

13.0000 Each(s)

**Extrusion Bent** 

Pick:

Qty

Part Number D2600-3

Description

Extrusion

2.0

BENDING

BENDING MACHINE - SKIDTUBES



Comment: BENDING MACHINE

Deburr one end of extrusion Drill #30 pilot holes using DT8689

Open holes to 5/16" and deburr

Bend using CNC bending machine as per program 2750.C and Folio FT003.

Use 5/16 locator pin on buggy "A".

Check fit to Jig DT8150

INSPECT WORK TO CURRENT STEP



3.0

QC5

Comment: INSPECT WORK TO CURRENT STEP

Inspect work to Step 6Ensure fit to Jig DT8150

OG

4.0

PACKAGING 1

PACKAGING RESOURCE #1





Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: Skin



9-2-25



## **Dart Aerospace Ltd**

W/O:		WORK ORDER C	HANGES				
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
					1		

Part No: PA	AR #: F	Fault Category:	NCR: Yes No	DQA:	Date:
Resolution:		Disposition:	QA: N/C Closed	:	Date:

NCR:			WORK ORDE	ER NON-CONFORMAN	CE (NCR)			
DATE	0750	Description of NC	Corrective Action Section B		Verification	Approval		
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector

NOTE: Date & initial all entries

Date:

Thursday, 19/02/2009 1:52:56 PM

ปรer:

Julie Dawson

**Process Sheet** 

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE EXTRUSION (BENT)

Job Number: 45897

Part Number: D26003BENT

Job Number:



Seq. #:

**Machine Or Operation:** 

Description:

5.0

QC21

FINAL INSPECTION/W/O RELEASE



9/03/02 4 mr 09-02-01

Job Completion



## **Dart Aerospace Ltd**

W/O:			WC	ORK ORDER CHANG	SES					
DATE	STEP	PR	OCEDURE CHA	NGE	By	/	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
			-							
Part No	•	PAR #:	Fault Cate	gory:	NCR: Y	es N	lo <b>DQ</b>	<b>A</b> :	_ Date: _	
	Res	solution:	Dispositio	າ:	QA: N/0	C Clo	sed:		Date:	
NCR:			WORK ORDI	ER NON-CONFORM	ANCE (N	ICR)				
DATE	OTED	Description of NC	Corrective Action Section B			Waritiaatia			Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng		gn & ate		fication Approval Chief Eng	QC Inspector	

NOTE: Date & initial all entries





DESIGI	NO TO	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECH	EO	APPROVED	DRAWING NO. REV. D
<i>X</i>	E	<b>%</b>	D2600 SHEET 1 OF 5
DATE	-		TITLE SCALE
98.0	8.20		EXTRUSION 1:1
Α		97.01.21	NEW ISSUE
В		97.09.09	CHANGE MATERIAL SPEC.
С		98.04.16	ADD D2600-3, UPDATE D2600-1 WIDTH, ADD DIE NO.
D		98.08.20	INCREASE MIN. UTS TO 40 KSI
Di		01-04-17	ADD PART NUMBERS + DIE NUMBERS + 4



## GENERAL NOTES

1. MATERIAL: 6061-T6 (QQ-A-200/8)

MINIMUM YIELD TENSILE STRENGTH = 35 ksi MINIMUM ULTIMATE TENSILE STRENGTH = 40 ksi MINIMUM ELONGATION = 8 %

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE ABOVE MINIMUM MECHANICAL PROPERTIES.

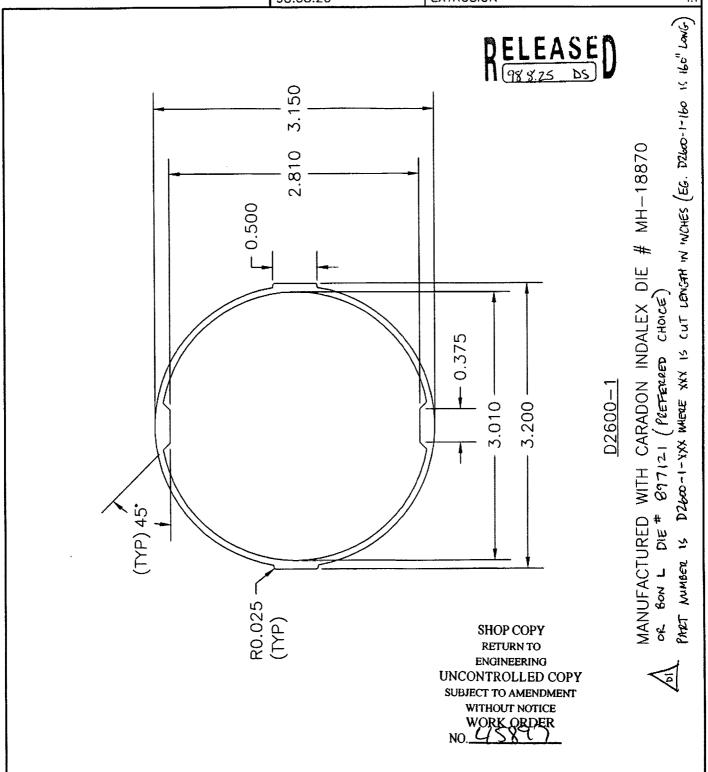
- 2. BREAK ALL SHARP CORNERS 0.010 MAX.
- 3. NO TOOLING MARKS.
- 4. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 5. ALL DIMENSIONS ARE IN INCHES.

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WITHOUT NOTICE
WORK ORDER



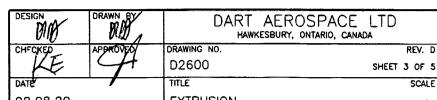


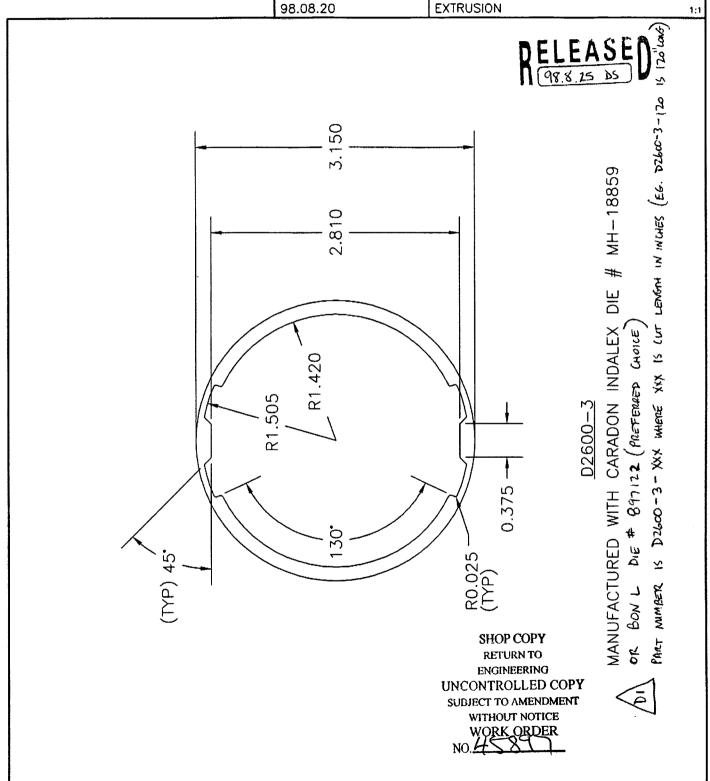
DESIGN	DRAWN BY	<del>-</del>	OSPACE LTD ontario, canada
CHECKED	APPROYED	DRAWING NO.	REV. D
KE	(41	D2600	SHEET 2 OF 5
DATE		TITLE	SCALE
98.08.20		EXTRUSION	1:1







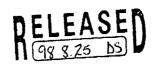


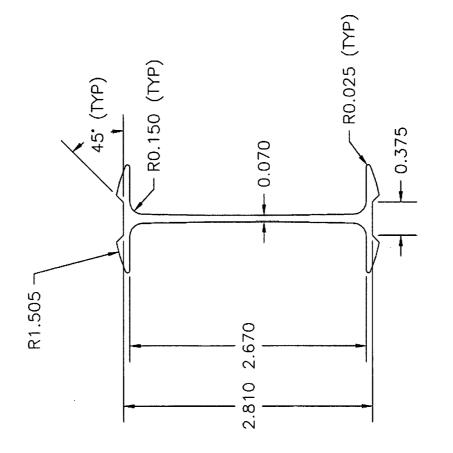






1	DESIGN	DRAWN BY	1	OSPACE LTD ONTARIO, CANADA
Į	CHECKED	APPROVED	DRAWING NO.	REV. D
	KE	A	D2600	SHEET 4 OF 5
	DATE		TITLE	SCALE
	98.08.20		EXTRUSION	1:1





MANUFACTURED WITH CARADON INDALEX DIE # MS-18871 NUMBER IS DZ600-5-XXX WHERE XXX IS CUT LENGTH IN INCHES D2600-5 PART (EG.

108" LONG

D2600-5-108

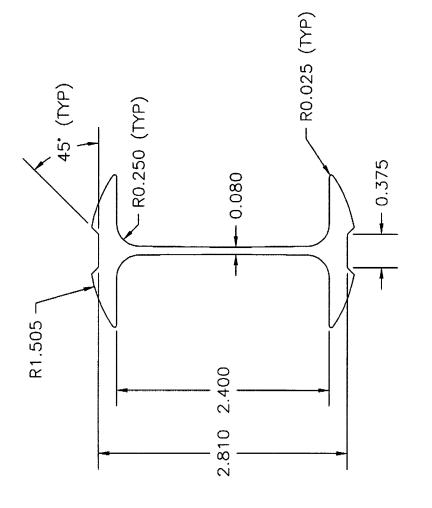
SHOP COPY RETURN TO **ENGINEERING UNCONTROLLED COPY** SUBJECT TO AMENDMENT WITHOUT NOTICE





)	DESIGN	DRAWN AY	1	SPACE LTD DINTARIO, CANADA
	CHECKED	APPROVED	DRAWING NO.	REV. D
	KE	193	D2600	SHEET 5 OF 5
	DATE		TITLE	SCALE
	98.08.20		EXTRUSION	1:1

## RELEASED



MANUFACTURED WITH CARADON INDALEX DIE # MS-18872 PRFT NUMBER IS D2600-7-XXX WHERE XXX IS CUT LENGTH IN INCHES  $(EG. \ D2600-7-125\ is\ is\ 25'\ Long)$ 

(a)

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WORK ORDER

5 8 QTY QTY QTY -042 -043 -044 PART NUMBER DESCRIPTION 350 SKIDTUBE ASSEMBLY, LH Х D2750-041 350 SKIDTUBE ASSEMBLY, RH D2750-042 Х D2750-043 350 SKIDTUBE ASSEMBLY, LH 350 SKIDTUBE ASSEMBLY, RH X D2750-044 1 D2739 WEB 8 D2743 SPACER 8 8 1 D2744 CAP 1 8 8 8 8 D2745 BUSHING D2750-1 SKIDTUBE WELDMENT, LH D2750-2 SKIDTUBE WELDMENT, RH D2750-3 SKIDTUBE WELDMENT, LH SKIDTUBE WELDMENT, RH D2750-4 BLADE FITTING, LH D3488-041 BLADE FITTING, RH 1 D3488-042 4 D3490-1 SPACER D3490-3 SPACER 4 4 4 4 D3490-5 SPACER D3492-041 PLUG ASSEMBLY 8 8 R 8 8 D3492-043 PLUG ASSEMBLY D3492-045 PLUG ASSEMBLY 8 8 1 D3535-25 WEARSHOE GASKET 1 1 D3536-25 3 3 3 3 D3537-1 WEARPAD WASHER 8 8 8 D3631-1 WEARPLATE 1 1 D3791-1 1 WEARSHOE 1 D3793-1 WEARSHOE D3793-3 1 1 1 1 1 D3794-1 GASKET 1 1 D3794-3 GASKET 1 INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225) ALS4-1032-225 38 38 38 38 34 34 34 34 BOLT AN3C5A AN3C6A BOLT. 4 4 4 INCORPORATE DSI 9413; QTY (3) D3537-1 WAS QTY (5) (ZN C8-1); D3791-1-73. REPLACES D3535-137-35 (ZN C8-1); D3794-1-73. REPLACES D3536-137-35 (ZN B8-1); ADD D3791-1 (ZN C8-1); WEARSHOE HOLES UNDER FWDIAFT SADDLE REMOVED (8 PL), WEARSHOE HARDWARE OF UPDATED (ZN B8-1); D3488-041/042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN 64-1); REASON: REF. NCK 08-043 AN6C44A BOLT AN8C35A 1 1 1 1 BOLT. 38 AN960C10L WASHER 38 38 38 08 07 16 PН 1 AN960C816L WASHER 1 1 4 MS21043-6 NUT 4 1 MS21083C8 NUT 1 1 1 CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS, CHANGE INSERTS, ADD D3631-1; REMOVE DT/38) NAS1515413; REMOVE QTY (10) NAS1515HBL, REMOVE D2741, QTY (2) AN950C816; REMOVE QT/2 (3) MS2103654 4 NAS1515H3L WASHER **GENERAL NOTES:** 07.05.17 MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0). FINISH: ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEO 9133/9157 T. ACID ETCH, ALONDE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL). 06.01.05 c ADD D2750-3/D2750-4; INCORPORATE D2738 AND D2740 98.11.18 TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED CHANGE MS24694-S293 TO ANB-16A CP 98.09.01 UNCONTROLLED UNITS: INCHES UNLESS OTHERWISE NOTED SUBJECT TO AMENDMENT Α **NEW ISSUE** 98.04.16 BREAK SHARP EDGES: N/A REV. DESCRIPTION BY DATE IDENTIFICATION: N/A WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
WELD PER DART QSI 004
INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES (Ø0.297) FOR WEARSHOE INSERTS
FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM VIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULIMATE TENSILE STRENGTH = 38 KSI
SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS
POWDER COATING WITH MEK DEGREASER. WITHOUT NOTICE DESIGN DART AEROSPACE USA, INC. RETURN TO ENGINEERING SHOP COPY DRAWN PORT HADLOCK, WA DRAWING NO. 10) CHECKED REV. F D2750 XX/ MFG. APPR. SHEET 1 OF 1 TITLE APPROVED SCALE 350 SKIDTUBE ASSEMBLY NTS DE APPR. POWDER COATING WITH MEK DEGREASER. SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL COPYRIGHT © 1998 BY DART AEROSPACE USA, INC.
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